

Amendment to the Claims:

This listing of Claims will replace all prior versions, listings of Claims in the application:

Listing of Claims:

1- 6 (Cancelled)

7. ~~{7}~~ (Currently amended) An electrostatically actuated MEMS switch for microwave and millimeter wave signals with DC to RF isolation and a de-actuation device comprising:

- a first dielectric substrate having an input transmission line and an output transmission line deposited on a front surface of said first dielectric substrate, said input transmission line being ~~separate~~ separated by a gap from said output transmission line along a direction of propagation of said microwave and millimeter wave signals;
- a cantilever connected to said input transmission line and with projection overlaps at least a part of said output transmission line;
- a first actuation electrode in a form of resistive layer for actuating said cantilever and for DC to RF isolation, with at least a portion being deposited within said gap between said input transmission line and said output transmission line, forming an overlapped portion with said cantilever, said first actuation electrode being connected to a first actuation electrode line having a length and a width;
- a second actuation electrode in a form of resistive layer for actuating said

cantilever and for DC to RF isolation, with one end connected electrically to said input transmission line, said second actuation electrode being connected to a second actuation electrode line having a length and a width;

- a conducting film on said first dielectric substrate forming a ground plane for the propagating microwave and millimeter wave signals; and
- a second dielectric substrate with a third actuation electrode in a form of resistive layer for de-actuating said cantilever and for DC to RF isolation, having a length and a width and with at least a portion being deposited in region overlapping said cantilever, forming an overlapped portion between said third actuation electrode and said cantilever, said third actuation electrode being connected to a third actuation electrode line having a length and a width.

8. [8] (Currently amended) An electrostatically actuated MEMS switch for microwave and millimeter wave signals with DC to RF isolation and a de-actuation device as defined in Claim 7, wherein thickness of said first actuation electrode is smaller than thickness of said input transmission line and said output transmission line to minimize interference on the movement of said cantilever.

9. [9] (Currently amended) An electrostatically actuated MEMS switch for microwave and millimeter wave signals with DC to RF isolation and a de-actuation device as defined in Claim 7, further comprising at least one dielectric stopper deposited on said second dielectric substrate next to said third actuation electrode, wherein thickness of said

dielectric stopper is larger than thickness of said third actuation electrode to minimize interference on the movement of said cantilever.

10. ~~{10}~~ (Currently amended) An electrostatically actuated MEMS switch for microwave and millimeter wave signals with DC to RF isolation and a de-actuation device as defined in Claim 7, further comprising a first dielectric layer deposited on said first actuation electrode and a second dielectric layer on said third actuation electrode to prevent DC shorting between said cantilever and said first actuation electrode when actuated, and between said cantilever and said third actuation electrode when de-actuated.

11. ~~{11}~~ (Currently amended) An electrostatically actuated MEMS switch for microwave and millimeter wave signals with DC to RF isolation and a de-actuation device as defined in Claim 7, wherein sheet resistance of said first actuation electrode line, said second actuation electrode line and said third actuation electrode line is selected to be greater than the characteristic impedance of said input transmission line and said output transmission line, in order to minimize interference on the propagating microwave or millimeter wave signals.

12. ~~{12}~~ (Currently amended) An electrostatically actuated MEMS switch for microwave and millimeter wave signals with DC to RF isolation and a de-actuation device as defined in Claim 7, wherein said cantilever is selected from a group of a single metallic layer, a multiple layer structure with at least one metallic layer for the propagating microwave or millimeter wave signals.

13. ~~{13}~~ (Currently amended) An electrostatically actuated MEMS switch for microwave and millimeter wave signals with DC to RF isolation and a de-actuation device as defined in Claim 7, further comprising a recess region in said cantilever and said recess region being located within overlapping region between projection of said cantilever and said output transmission line to enhance electrical contact between said cantilever and said output transmission line.

14-20 (Cancelled)